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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LOVEL, KIMBERLY M	

ART UNIT	PAPER NUMBER
2167	

NOTIFICATION DATE	DELIVERY MODE
07/09/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Office Action Summary	Application No.	Applicant(s)	
	10/779,355	PATTERSON ET AL.	
	Examiner	Art Unit	
	KIMBERLY LOVEL	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8 and 10-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-8 and 10-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the Amendment filed 25 February 2008.

2. Claims 1, 2, 4-8 and 10-20 are currently pending and claims 3 and 9 have been canceled. In the Amendment filed 25 February 2008, claims 1, 5, 7, 11, 12, 15, 16, 17, 19 and 20 have been amended. This action is made Final.

3. The rejections of claims 1, 2, 4-8, and10-20 as being unpatentable over US PGPub 2007/0124794 to Marko et al in view of US Patent No 5,559,991 to Kanfi have been withdrawn as necessitated by applicants' amendment.

Claim Objections

4. The objections to claims 16, 17, 19 and 20 have been withdrawn as necessitated by applicants' amendment.

Claim Rejections - 35 USC § 112

5. The rejections of claims 5 and 11 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention have been withdrawn as necessitated by applicants' amendment.

Claim Rejections - 35 USC § 101

6. The rejections of **claims 15-20** under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter have been withdrawn as necessitated by applicants' amendment.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 2, 4-8, and10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2007/0124794 to Marko et al (hereafter Marko) in view of US Patent No 5,559,991 to Kanfi (hereafter Kanfi) in view of US PGPub 2003/0217083 to Taylor (hereafter Taylor).

Referring to claim 1, Marko discloses a computer implemented method for storing data comprising:

receiving a composite data stream from a server [programming center 20] (see [0021]);

storing the received composite data stream so that it may be restored [playback] (see [0027]), said storing including,

decomposing the composite data stream into a plurality of constituent data streams [demultiplex a received composite data stream] (see [0021], lines 12-14); and

segmenting at least one of the plurality of constituent data streams decomposed from the composite data stream (see [0029]).

Marko discloses updating the content segments 48 stored in the local storage device 50 (see [0050]). However, Marko fails to explicitly disclose the further limitations of comparing segments resulting from the segmenting to determine those segments already stored as a result of storing a previous one of said plurality of composite data streams and discarding those of the segments resulting from said segmenting which are determined to have been stored previously. Kanfi discloses dividing a file into segments and storing each segment (see abstract), including the further limitations of comparing segments resulting from the segmenting to determine those segments already stored as a result of storing a previous one of said plurality of composite data streams (see column 4, lines 24-36); and discarding those of the segments resulting from said segmenting which are determined to have been stored previously (see column 4, lines 37-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the steps for storing a segment only once as disclosed by Kanfi with the storage of Marko. One would have been motivated in order to increase storage efficiency by eliminating redundant data.

While the combination of Marko and Kanfi (hereafter Marko/Kanfi) discloses receiving a data stream from a server and storing the data stream so that it may be restored, Marko/Kanfi fails to explicitly disclose the further limitation of storing the received composite data stream so that it may be **restored to the server**. Taylor

discloses a backup data system which stores data (see abstract), including the limitation of storing the received composite data stream so that it may be restored to the server (see [0013] and [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to restore a server as disclosed by Taylor using the stored data stream of Marko/Kanfi. One would have been motivated to do so in order to increase data accuracy by providing data recovery after a failure or error.

Referring to claim 2, the combination of Marko/Kanfi and Taylor (hereafter Marko/Kanfi/Taylor) discloses the computer implemented method of claim 1, wherein said decomposing includes: storing a composite data stream map [control signals] that indicates how to recompose the plurality of constituent data streams into the composite data stream (Marko: see [0029]).

Referring to claim 4, Marko/Kanfi/Taylor discloses the computer implemented method of claim 1, wherein said storing further comprises: determining the first of said plurality of constituent data streams is administrative data that may be restored by regeneration rather than being stored; and discarding said first constituent data stream (Kanfi: see column 14, lines 49-67).

Referring to claim 5, Marko/Kanfi/Taylor discloses the computer implemented method of claim 4 wherein the administrative data is tape markers and/or header information [time stamps] (Kanfi: see column 14, lines 49-67).

Referring to claim 6, Marko/Kanfi/Taylor discloses the computer implemented method of claim 1 wherein the storing comprises segmenting each of the plurality of constituent data streams (Marko: see [0029]).

Referring to claim 7, Marko discloses a computer implemented method for efficiently storing data comprising:

receiving a plurality of composite data streams from a server [programming center 210] (see [0021]); and

storing each of said plurality of composite data streams so that it may be restored [playback] (see [0027]), said storing including, and

decomposing the composite data stream into a plurality of constituent data streams [demultiplex a received composite data stream] (see [0021], lines 12-14).

Marko discloses segmenting the constituent data streams (see [0029]) and updating the content segments 48 stored in the local storage device 50 (see [0050]). However, Marko fails to explicitly disclose the further limitations of receiving the plurality of composite data streams over time; wherein the composite data streams represent snapshots of data residing at a set of one or more sources taken over said time; and storing using segment reuse a set of one or more of said plurality of constituent data streams, said storing using segment reuse including performing the following for each of said set of constituent data streams, segmenting the constituent data stream, determining which segments resulting from the segmenting are already stored as a result of storing a previous one of the plurality of composite data streams, and storing only those segments of the constituent data stream that cannot be restored using

segments already stored as a result of storing a previous one of said plurality of composite data streams. Kanfi discloses dividing a file into segments and storing each segment (see abstract), including the further limitations of receiving the plurality of composite data streams over time (see column 4, lines 7-14); wherein the composite data streams represent snapshots [latest version of a file] of data residing at a set of one or more sources taken over said time (see column 4, lines 7-14); storing using segment reuse a set of one or more of said plurality of constituent data streams (see column 1, lines 43-48), said storing using segment reuse including performing the following for each of said set of constituent data streams, segmenting the constituent data stream (see column 2, line 50 – column 3, line 5), determining which segments resulting from the segmenting are already stored as a result of storing a previous one of the plurality of composite data streams (see column 4, lines 24-36), and storing only those segments of the constituent data stream that cannot be restored using segments already stored as a result of storing a previous one of said plurality of composite data streams (see column 4, lines 37-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the steps for storing a segment only once as disclosed by Kanfi with the storage of Marko. One would have been motivated in order to increase storage efficiency by eliminating redundant data.

While Marko/Kanfi discloses receiving a data stream from a server and storing the data stream so that it may be restored, Marko/Kanfi fails to explicitly disclose the further limitation of storing the received composite data stream so that it may be

restored to the server. Taylor discloses a backup data system which stores data (see abstract), including the limitation of storing the received composite data stream so that it may be restored to the server (see [0013] and [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to restore a server as disclosed by Taylor using the stored data stream of Marko/Kanfi. One would have been motivated to do so in order to increase data accuracy by providing data recovery after a failure or error.

Referring to claim 8, Marko/Kanfi/Taylor discloses the computer implemented method of claim 7, wherein said decomposing includes: storing a composite data stream map [control signals] that indicates how to recompose the plurality of constituent data streams into the composite data stream (Marko: see [0029]).

Referring to claim 10, Marko/Kanfi/Taylor discloses the computer implemented method of claim 1, wherein said storing each of said plurality of composite data streams further comprises: determining the first of said plurality of constituent data streams is administrative data that may be restored by regeneration rather than being stored; and discarding said first constituent data stream (Kanfi: see column 4, lines 49-67).

Referring to claim 11, Marko/Kanfi/Taylor discloses the computer implemented method of claim 10, wherein the administrative data is tape markers and/or header information [time stamps] (Kanfi: see column 4, lines 49-67).

Referring to claim 12, Marko discloses a computer implemented method for storing data comprising:

receiving a composite data stream from a server [programming center 20] (see [0021]);

storing the received composite data stream so that it may be restored [playback] (see [0027]), said storing including, and

decomposing the composite data stream into a plurality of constituent data streams [demultiplex a received composite data stream] (see [0021], lines 12-14).

Marko discloses segmenting the constituent data streams (see [0029]) and updating the content segments 48 stored in the local storage device 50 (see [0050]). However, Marko fails to explicitly disclose the further limitations of receiving the plurality of composite data streams from a backup server and backing up each of said plurality of constituent data streams separately, said backing up including, applying segment reuse to back up a first set of one or more of said plurality of constituent data streams. Kanfi discloses dividing a file into segments and storing each segment (see abstract), including the further limitations of receiving the plurality of composite data streams from a backup server (see column 1, lines 33-42) and backing up each of said plurality of constituent data streams separately, said backing up including, applying segment reuse to back up a first set of one or more of said plurality of constituent data streams (see column 1, lines 43-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the steps for storing a segment only once as disclosed by Kanfi with the storage of Marko. One would have been motivated in order to increase storage efficiency by eliminating redundant data.

While Marko/Kanfi discloses receiving a data stream from a server and storing the data stream so that it may be restored, Marko/Kanfi fails to explicitly disclose the further limitation of storing the received composite data stream so that it may be **restored to the server**. Taylor discloses a backup data system which stores data (see abstract), including the limitation of storing the received composite data stream so that it may be restored to the server (see [0013] and [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to restore a server as disclosed by Taylor using the stored data stream of Marko/Kanfi. One would have been motivated to do so in order to increase data accuracy by providing data recovery after a failure or error.

Referring to claim 13, Marko/Kanfi/Taylor discloses the computer implemented method of claim 12, wherein said decomposing includes: storing a composite data stream map [control signals] that indicates how to recompose the plurality of constituent data streams into the composite data stream (Marko: see [0029]).

Referring to claim 14, Marko/Kanfi/Taylor discloses the computer implemented method of claim 13, wherein said backing up includes: discarding a second set of one or more of said plurality of constituent data streams because they are administrative data that may be restored using regeneration as opposed to storage (Kanfi: see column 4, lines 49-67).

Referring to claim 15, Marko discloses an apparatus to back up data comprising: computer hardware including the following components:

an interface agent to receive a plurality of composite data streams from a server [programming center 210] (see [0021]); and

a composite data stream decomposer, coupled to a interface agent, to decompose composite data streams into their constituent data streams [demultiplex a received composite data stream] (see [0021], lines 12-14).

Marko discloses segmenting the constituent data streams (see [0029]) and updating the content segments 48 stored in the local storage device 50 (see [0050]). However, Marko fails to explicitly disclose the further limitations of receiving the plurality of composite data streams over time; wherein the composite data streams represent snapshots of data residing at a set of one or more sources taken over said time; and storing using segment reuse a set of one or more of said plurality of constituent data streams, said storing using segment reuse. Kanfi discloses dividing a file into segments and storing each segment (see abstract), including the further limitations of receiving the plurality of composite data streams over time (see column 4, lines 7-14); wherein the composite data streams represent snapshots [latest version of a file] of data residing at a set of one or more sources taken over said time (see column 4, lines 7-14); storing using segment reuse a set of one or more of said plurality of constituent data streams (see column 1, lines 43-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the steps for storing a segment only once as disclosed by Kanfi with the storage of Marko. One would have been motivated in order to increase storage efficiency by eliminating redundant data.

While Marko/Kanfi discloses receiving a data stream from a server and storing the data stream so that it may be restored, Marko/Kanfi fails to explicitly disclose the further limitation of restoring the constituent data stream to the server. Taylor discloses a backup data system which stores data (see abstract), including the limitation of restoring the constituent data stream to the serve (see [0013] and [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to restore a server as disclosed by Taylor using the stored data stream of Marko/Kanfi. One would have been motivated to do so in order to increase data accuracy by providing data recovery after a failure or error.

Referring to claim 16, Marko/Kanfi/Taylor discloses the apparatus of claim 15 further comprising: a map file storage [control signals], coupled to said composite data stream decomposer, to store data indicating how to recompose composite data streams from their constituent data streams (Marko: see [0029]).

Referring to claim 17, Marko/Kanfi/Taylor discloses the apparatus of claim 15 further comprising: an administrative data regenerator, coupled to said composite data stream decomposer, to regenerate data from constituent data streams that was not stored because that data could be restored by regeneration (Kanfi: see column 4, lines 49-67).

Referring to claim 18, Marko/Kanfi/Taylor discloses the apparatus of claim 17 wherein the administrative data is regenerated in accordance with composite data stream attribute data retrieved from a configuration file (Kanfi: see column 4, lines 49-67).

Referring to claim 19, Marko/Kanfi/Taylor discloses the apparatus of claim 15 wherein the composite data stream decomposer is a machine-readable medium having stored thereon a set of instructions, which when executed by a set of one or more processors, cause the operations of the composite data stream decomposer to be performed (Marko: see [0027]).

Referring to claim 20, Marko/Kanfi/Taylor discloses the apparatus of claim 15 wherein the composite data stream decomposer is an application specific integrated circuit [RAM, Flash] (Marko: see [0027]).

Response to Arguments

9. Applicant's arguments with respect to claims 1, 2, 4-8 and 10-20 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments filed on page 13 of the Remarks stating that Marko teaches away from the applicant's invention have been fully considered but they are not persuasive. The examiner agrees that Marko restores a data stream for the purpose of playback. However, just because the intended use of Marko is for playback does not mean that this reference teaches away from the concept of restoring the stream in the same manner and then sending the stream to a server. The difference between Marko and the applicant's invention is merely the intended use of the data stream. Therefore, a secondary reference has been utilized to teach the intended use of the applicant's invention.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit 2167

Kimberly Lovel
Examiner
Art Unit 2167

2 July 2008
kml